

# PATENT ABSTRACTS OF JAPAN

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## (54) DIVIDING METHOD OF SEMICONDUCTOR CHIP

### (57)Abstract:

PURPOSE: To prevent the generation of electrical non-conduction in the section of a via hole by forming the via hole into a semiconductor chip and simultaneously plating all of the rear of a grounding electrode shaped to the surface, the inner surface of a through-hole and the rear of the chip.

CONSTITUTION: A split line trench is shaped to the surface of a wafer 21, an insulating film 27 is formed onto the surface of the trench, and a window is bored 23' in at least one through grounding electrode 23 in the insulating film 27. The insulating film is shaped onto a support board so that windows in each chip are connected electrically through a conductive film, and a through-hole (a via hole) 28 penetrated to the grounding electrode 23 from the rear of the wafer 21 and the trench of a split line 29 reaching the insulating film 27 are formed. A plating foundation metal 30 is applied onto the surface of the wafer 21, and the upper section of the plating foundation metal 30 is placed with a conductive metal. The semiconductor chip is divided. Accordingly, no defectives, not conducting electrically on the inner surfaces of the via holes 28, are formed.

